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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,599	02/27/2002	Tae-Sik Yun	678-743 (P9726)	7084

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EXAMINER

CHIANG, JACK

ART UNIT	PAPER NUMBER
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2642

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,599	YUN, TAE-SIK	
	Examiner	Art Unit	
	Jack Chiang	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 7 is/are allowed.
- 6) ☒ Claim(s) 1, 5-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

CLAIMS

112 Second Paragraph Rejection

1. Claims 1, 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 5, they recited that "the keypad is detached ...". This is vague and indefinite as it does not recite where the keypad is detached from. By merely saying that "the keypad is detached" would have no clear meaning.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 5, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Helms (US 5561710) in view of Mauney et al. (US 5812659).

Regarding claim 1, as best understood, Helms shows a detachable keypad (10) comprising:

A jack (for 18);

A key array (14);

A DTMF generator (36);

When the keypad (10) is detached (i.e. from 42 in fig. 4), and a key (14) is pressed while a plug (18) is inserted into the jack (fig. 1), a DTMF signal is generated by the

Art Unit: 2642

DTMF generator (36) corresponding to the pressed key and is transmitted to a microphone (24) of a mobile phone through a speaker (22).

Helms differs from the claimed invention in that it does not refer the jack (for 18) and the speaker (22) as an earphone-microphone jack and speaker respectively.

However, it is commonly seen that speakers come with the form of an earphone-microphone speaker. This is shown by Mauney, such as the earphone-microphone speaker (fig. 2 in Mauney).

Hence, the concept of using such speaker is well taught by Helms, it would have been obvious for one of ordinary skill in the art to use Helms' speaker as it is, or to replace Helms' speaker with Mauney's earphone-microphone speaker, because it is commonly seen that speakers come with a single speaker as shown by Helms, or with an earphone-microphone speaker shown by Mauney, this simply can be considered as an intended use of Mauney, and replacing the type of speaker in Helms would not change the basic concept of transmitting the DTMF tone from the keypad to the handset as taught by Helms.

Regarding claim 5, as best understood, Helms shows a detachable keypad (10) comprising:

A jack (for 18);

A plug (18);

A key array (14);

A key press sensor (from 32);

Art Unit: 2642

A DTMF generator (36);

A controller (32) for controlling the DTMF generator (36) corresponding to the pressed key and is transmitted to a microphone (24) of a mobile phone through a speaker (22) while the keypad (10) is detached (i.e. from 42 in fig. 4), and the plug (18) is inserted in the jack (fig. 1).

Helms differs from the claimed invention in that it does not refer the jack (for 18) and the speaker (22) as an earphone-microphone jack and speaker respectively.

However, it is commonly seen that speakers come with the form of an earphone-microphone speaker. This is shown by Mauney, such as the earphone-microphone speaker (fig. 2 in Mauney).

Hence, the concept of using such speaker is well taught by Helms, it would have been obvious for one of ordinary skill in the art to use Helms' speaker as it is, or to replace Helms' speaker with Mauney's earphone-microphone speaker, because it is commonly seen that speakers come with a single speaker as shown by Helms, or with an earphone-microphone speaker shown by Mauney, this simply can be considered as an intended use of Mauney, and replacing the type of speaker in Helms would not change the basic concept of transmitting the DTMF tone from the keypad to the handset as taught by Helms.

Helms further differs from the claimed invention in that it does not explicitly mention a sensor for checking whether or not the plug (81) is inserted into the jack.

However, it is understood and inherent that when the plug (18) is inserted into the communication terminal (10), the plug (18) has contacts which sends a connection

Art Unit: 2642

signal to the sensor in the terminal (10). This is also taught by Mauney, such as the plug (TIP, RING, J2-1, J2-2 etc. in fig. 12) which would provide a sensed signal to determine whether or not the plug is inserted into the jack. If it is found that Holms does not have such sensing feature, it would have been obvious for one of ordinary skill in the art to adapt Mauney's method in Holms when plugging two devices together. This has been done conventionally in such devices and would have been obvious for one of ordinary skill in the art.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Helms and Mauney et al. in view of McAvoy et al. (US 3757048). Regarding claim 6, the combination of Helms shows the amplifier (such as 38 in Helms). The combination of Helms differs from the claimed invention in that it does not have a volume control.

However, McAvoy teaches providing a volume control for a speaker amplifier (see 130, 132).

Hence, it would have been obvious for one of ordinary skill in the art to modify the combination of Helms with a volume control as taught by McAvoy, this is commonly done in sound processing when it involves a speaker which is usually required to control the audio output level of the speaker (col. 3, lines 30-33 in McAvoy).

5. Claims 2-4 and 7 are allowed over the prior art of record, see arguments in remarks filed on 11-18-04.

ARGUMENT

6. In response to the remarks, pages 5-6, the amended language is rejected under 112, see rejection above.

The claimed limitations "the keypad is detached and a key is pressed" is met by Helms, see rejection above.

Rejections on claims 2-4 and 7 have been withdrawn. Therefore, arguments (pages 6-7) regarding those claims are moot.

7. Applicant's arguments with respect to claims 1, 5-6 have been considered but are moot in view of the new ground(s) of rejection.


8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 571-272-7483. The examiner can normally be reached on Mon.-Fri. from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jack Chiang
Primary Examiner
Art Unit 2642